A CLARION COMPANY

MS2105/MS2107

VEHICLE SECURITY SYSTEM WITH REMOTE START

Owner's Manual

CONTENTS

1. Features 3
2. Ungo-Net Interface Introduction 4
3. Remote Transmitter 5
   - 3.1 Remote Transmitter Layout 5
   - 3.2 Battery Replacement 5
4. Security System Operation 6
   - 4.1 Arming Operation 6
   - 4.2 Remote Sensor Bypass 6
   - 4.3 Passive Arming 6
   - 4.4 Disarming Operation 6
   - 4.5 Tamper Alert 7
   - 4.6 Silent Arming / Disarming 7
   - 4.7 Driver's Door Priority Unlock 7
   - 4.8 Auto Rearm Feature 7
   - 4.9 Ignition Controlled Door Locks 7
   - 4.10 Remote Panic 8
   - 4.11 Emergency Override 8
   - 4.12 Valet Mode 9
   - 4.13 Optional Trunk Release 9
   - 4.14 Optional Trunk Disarm Feature 9
   - 4.15 Programming Remote Transmitters 9
5. Remote Start Operation 10
   - 5.1 Remote Starting 10
   - 5.2 Shutdown 10
   - 5.3 Stop and Go 10
   - 5.4 Auto Cold Starting 11
6. LCD 2-way Transmitter (MS2107) 11
   - 6.1 Programming LCD 2-way Remote Transmitters 11
7. User Selectable Programming Options 12
   - 5.1 Programmable Options 12
   - 5.2 Entering User Programming 13
   - 5.3 Default Reset For User Programming 13
8. Reference Charts 14
   - 6.1 Transmitter Operation 14
   - 6.2 Status Indicator (LED) Functions 14
   - 6.3 Siren Chirp Status 14
9. Warranty Information 15
10. Installation Information 16

1. FEATURES

The Ungo MS2105 and MS2107 are state-of-the-art combination vehicle security and remote controlled car starter systems. These systems offer features designed to deter and detect potential intrusions to your vehicle, and send an alert signal when a zone is violated.

These systems will inform the user of any bad switches or sensors that may be causing the system to function improperly, and when triggered the violated zone will be identified. Your Ungo system protects both you and the contents of your vehicle with features such as panic mode, dome light illumination, and ignition controlled door locking.

In addition to security features, the MS2105 and MS2107 will safely start your car by remote control, without your key in the ignition. If your vehicle is powered by a diesel engine, the ignition will turn on for several seconds prior to starting the engine, in order for the glow plugs to warm up.

Once the engine is remote started, your preset accessories (heater/air conditioner) will be turned on to provide you with the maximum comfort when you enter the vehicle. After activation, the vehicle will run for approximately 15 minutes (or 25 minutes if selected by your installer at the time of installation) before automatically shutting off.

The MS2107 adds the convenience and security of 2-way operation with LCD display confirmation. The LCD display provides real-time information about the status of your vehicle including arm/disarm confirmation, triggered sensor identification, engine running indication, and more. For a complete description of the LCD transmitter functions, please see the 2-way transmitter supplement included with the MS2107.

Standard Features

- Two 5-Button VariCode^3 1-way Remote Transmitters (**MS2105**)
  or
- One 5-Button VariCode^3 1-way Remote Transmitter and One 2-way LCD Transmitter (**MS2107**)
- Status Indicator (LED)
- Multi-Tone 120dB Siren
- Dual Stage Shock Sensor
- Built-in Starter Disable
- Coded Emergency Override
- Ungo-Net Interface
- Flashing Parking Lights

Optional Features

- Keyless Entry
- Remote Trunk/Hatch Release
- Dome Light Supervision
- Hood and Trunk Protection
- Power Window Roll Up
- Driver's Door Priority Locks
- Radar Sensor
- Remote Head Light Control

Note: Some features may require additional parts and labor, and may not be appropriate for certain vehicles. Consult your authorized Ungo dealer for assistance.

2. Ungo-Net Interface Introduction

The MS2105 and MS2107 are equipped with Ungo's newest and most revolutionary technology to date, the Ungo-Net bus system. Ungo-Net is a network system that allows expansion, flexibility, and superior vehicle security through digital communication. This is established through a PC link through either a computer or PDA, similar to a USB port on a PC. Utilizing this interface, the alarm system and remote transmitters can be configured to best suit the needs of the operator. This includes arming mode selections, auxiliary functions, multiple vehicle operation, transmitter configuration, and interface modules.

For additional convenience and operation, households with multiple vehicles can utilize a single remote transmitter to operate 2 vehicles. Eliminating the cumbersome cluster of multiple remote transmitters. Also, the remote transmitters can be customized to better suit the needs of the operator. The Arm and Disarm buttons can be consolidated into the one button with the remaining buttons controlling assignable features.

Capitalizing on Ungo-Net, an optional LCD transmitter kit can be added to the security system. This transmitter features 2-way communication with audible and visual confirmation that provides vehicle status information and alerts the operator to violation attempts.

In addition, system configuration, software upgrades, and diagnostics can be performed through the Ungo-Net port. Thus allowing the Ungo dealer to maintain the utmost protection and serviceability of the security system. Ungo-Net also allows the dealer to troubleshoot false triggers and calibrate sensors quickly.

Ungo-Net Accessories

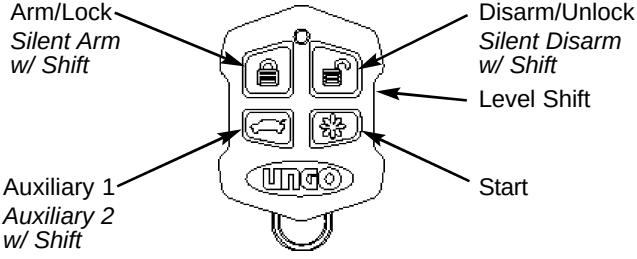
PCLINK: Includes Ungo-Net software, serial cable, instructions, and power supply.

FMKIT: Includes SAA217T (LCD transmitter), extended range antenna, instructions, and transceiver module.

AUX BOX: Includes receiver module, wiring harness, and instructions.

3. REMOTE TRANSMITTER

3.1 Remote Transmitter Layout



The Ungo MS2105/MS2107 comes with one or two VariCode^3 Remote Transmitters used to control the system's features. Each time a transmitter button is pressed, the LED will flash to indicate that a transmission is taking place.

Button 1 Arms the system and locks the doors.*

Button 2 Disarms the system and unlocks the doors.* If the optional Driver's Door Priority Unlocking feature is installed, pressing Button 2 Disarms the system and unlocks only the driver's door. Pressing Button 2 again unlocks all doors.

Button 3 Activates the system's auxiliary 1 output (usually used for trunk release).*

Button 4 Activates the system's remote start feature.

The Level Shift Button temporarily changes the function of buttons 1-4 allowing expanded operation and multi-car compatibility. Each time the Level Shift button is pressed, a new level of commands are accessed up to a maximum of four levels (Level Shift three times). Note: pages 3 and 4 are reserved for channel expansion modules or multi-car operation. *See your Authorized Ungo Dealer for details.*

* *Optional feature*

3.2 Battery Replacement

Your Ungo remote transmitter uses a 12 volt alkaline battery (type 23A), which will need to be replaced from time to time. Under normal conditions, the battery may last more than 6 months before it needs replacement. When your remote transmitter's battery needs replacement, you will notice a decrease in operating range or a decrease in the brightness of the transmitter's LED indicator.

To change the battery, remove the 2 screws at the back of the transmitter and carefully separate the top and bottom halves of the transmitter case. Insert the new battery, carefully observing proper polarity, then replace the cover.

4. SECURITY SYSTEM OPERATION

4.1 Arming Operation

To arm the alarm system, press Lock button on the transmitter:

- The siren will chirp once.
- The parking lights will flash once.*
- The doors will lock.*
- The LED will come on solid for 5 seconds, and then begin to flash. After 10 seconds the *alarm system is armed.*

  ** Optional feature*

4.2 Remote Sensor Bypass

To arm the system and bypass the shock sensor, hood/trunk inputs, press the Lock button to Arm, then within 2 seconds press the Lock button again. The siren will chirp 5 times to indicate Sensor Bypass mode. The doors will still be monitored.

4.3 Passive Arming (Programmable feature)

The passive arming feature allows the system to arm automatically. The remote transmitter still can be used to arm the system at any time. This option is user programmable (see *User Accessible Programming Options*).

To arm the alarm system passively:

1. Turn the ignition Off.
2. Exit the vehicle and close all the doors.
   - The LED will begin flashing rapidly to indicate the system is preparing to arm.
   - The siren will chirp 30 seconds after the last door is closed to indicate the system is armed.
   - The doors will lock.*

     ** Optional feature*

4.4 Disarming Operation

To disarm the system press the Unlock button on the transmitter:

- The siren will chirp twice.**
- The parking lights will flash twice.*
- The doors will unlock.*
- The dome light will turn on for 30 seconds.*

  ** Optional feature*

  *** If the alarm was triggered while away, the system will respond with 3 chirps and 3 parking light flashes, see Tamper Alert.*

4.5 Tamper Alert

On Disarming, if the system responds with three chirps, indicating the system was triggered, turn on the ignition and the LED will flash the triggered zone 5 cycles.

LED Flashes (60 seconds):

1 flash	=	optional sensor
2 flashes	=	shock sensor
4 flashes	=	door
5 flashes	=	trunk

example: flash-flash-pause-flash-flash-pause = shock sensor

4.6 Silent Arming / Disarming (Programmable feature)

As an option, the system can be programmed to always Arm and Disarm the with or without chirp confirmation (see *User Accessible Programming Options*).

To temporarily cancel the Arming and Disarming confirmation chirps, press the Level Shift Button followed by the Arm or Disarm Button.

Note: The confirmation chirps will only be cancelled if the system status is normal. The chirp indications for Tamper Alert and the open zone warning will not be cancelled when the system is Armed or Disarmed silently.

4.7 Optional Driver's Door Priority Unlock

The optional Driver's Door Priority Unlock feature provides a higher level of personal safety by unlocking only the driver's door upon disarming. Once disarmed, pressing the disarm button again will unlock all doors. This optional feature may require additional parts and labor, consult your Authorized Ungo dealer for more information.

4.8 Auto Rearm Feature (Programmable feature)

The Auto Rearm feature allows the system to automatically rearm itself in the event the system becomes disarmed and a door is not opened within 30 seconds. This option is user programmable (see *User Selectable Programming Options*).

4.9 Ignition Controlled Door Locks (Programmable feature)

The ignition door-locking feature allows the doors to automatically lock when the ignition is turned On, and automatically Unlock when the ignition is turned Off.This option is user programmable (see *User Selectable Programming Options*).

4.10 Remote Panic Feature

In the event of an emergency (PANIC) situation, the system's siren can be triggered for 45 seconds to attract attention. To activate the Panic feature, press and hold the Lock button for 3 seconds.

- The siren will sound.
- The parking lights will flash.*
- The doors will unlock.*
- The starter disable will turn Off.*

* *Optional feature*

4.11 Coded Emergency Override (Programmable feature)

If the remote transmitter becomes lost or fails to operate, use the emergency override feature to disarm the alarm system. Be sure that you have your ignition keys ready and that you know the location of the Override switch before you perform this procedure.

To override the system:

1. Enter the vehicle.
   - *Because the alarm system is armed, the siren will sound.*
2. Turn the ignition On.
3. Press the Override switch a number of times equal to the disarm code and continue holding for 10 seconds on the last press. (If the default code setting has not been changed, press and hold the override switch for 10 seconds to disarm to system.)
   - *The system will disarm.*
   - *The siren will stop sounding.*
   - *Starter disable will turn Off.*
4. You can now start and drive the car.
5. If the disarm code is not entered correctly, turn off the ignition and begin again at step 2.
6. Consult your authorized Ungo dealer to check the alarm system.

The default setting for the Emergency Override Disarm Code is 1. To change the Emergency Override Code see *User Selectable Programming Options,* step 6.

Note: During installation, your installer can program the system to give a 15 second entry delay when the system Arms passively. When the door is opened after the system is Armed, the siren will give a series warning of chirps before sounding, giving you time to perform the emergency override procedure.

4.12 Valet Mode

When placed into Valet Mode the security system will be disabled. However, the optional keyless entry and auxiliary outputs will still function if installed.

To enter the Valet Mode:

1. Be sure the alarm system is disarmed.
2. Press and hold the Valet/Override button.
3. Turn the ignition On.

4. Continue holding the Valet/Override button for 3 seconds.
5. Turn the ignition Off.
   - *The siren will chirp once.*
   - *The LED will turn On solid indicating the system is in Valet mode.*

To exit Valet Mode:

1. Press and hold the Valet/Override button down.
2. Turn the ignition On.
3. Hold the Valet/Override button for 3 seconds.
4. Turn the ignition Off.
   - *The siren will chirp twice.*
   - *The LED will turn off indicating the system is out of Valet mode.*

4.13 Optional Trunk Release

Press the Trunk button for approximately 3 seconds to open the trunk. This optional feature may require additional parts and labor, consult your Authorized Ungo dealer for more information.

4.14 Optional Trunk Disarm Feature

The trunk disarm feature allows the alarm to disarm automatically when the Trunk button is used to activate the optional trunk release. This eliminates having to disarm the alarm system prior to activating the trunk release. This optional feature may require additional parts and labor, consult your Authorized Ungo dealer for more information.

4.15 Programming 1-way (standard) Remote Transmitters

Make sure to have the desired transmitters ready and follow the steps below.

To program transmitters:

1. Turn the ignition ON.
2. Press and hold the Valet/Override switch for 5 seconds.
   - *The siren will chirp once.*
3. Press the Lock button on the transmitter.
   - *The siren will chirp once.*
4. Press the Lock button on the transmitter again.
   - *The siren will chirp twice.*
5. Repeat steps 3 and 4 for each additional transmitter.
6. Turn OFF the ignition when transmitter programming is complete.
   - *The siren will chirp 3 times.*

5. REMOTE START OPERATION

5.1 Remote Starting

To Remote Start the System:

1. Be sure the System is not in Valet Mode.
2. Press Button 4.
   - *The parking lights will turn on.*
   - *The siren will chirp 3 times (if Armed, the shock sensor will turn off).*
   - *The ignition will turn on.*
   - *The engine will start and run for the duration of its programmed Run Timer.**
   - *The heater/air-conditioner will turn on (if turned on prior to exiting the vehicle).*
   - *The LED will double flash.*

   **If the engine fails to start on the first attempt, it will repeat the starting procedure 2 more times.*

Turning on the ignition key then pressing the brake pedal will disengage the MS2005 and allow you to operate and drive your vehicle in a normal manner.

5.2 Shut Down

Any of the following will shut down the engine when it is under Remote Start control:

1. Press Button 4 for 3 seconds.
   - *After the engine shuts down the doors will lock (if installed and programmed).*
2. Press the brake pedal.
3. Open the hood (or trunk if connected).
4. Remote Start Time-Out (completion of the timed run cycle).

5.3 Stop and Go

The Stop and Go Feature allows you to remove the ignition key and exit the vehicle while keeping the engine running during short stops.

To leave the vehicle running:

1. Press the brake pedal and hold.
2. While pressing the brake pedal, push Button 4 on the Remote Transmitter for 2 seconds.
   - *The LED will flash rapidly.*
   - *The parking lights will flash 5 times.*
3. Release the brake pedal.
4. Remove the key from the ignition switch.
5. You may now exit the vehicle, arm the alarm and lock the doors.

To re-enter the vehicle and resume driver control:

1. Disarm the alarm by pressing Button 2 on the Remote Transmitter.*
   - *The doors will unlock.**
2. Turn on the ignition.
3. Press the brake pedal to disengaged the MS2005.
   - The LED will turn off.

**If optional keyless entry feature is installed.*

5.4 Auto Cold Starting

The Auto Cold Starting Feature automatically starts the vehicle every two hours and runs for the preset Run Time.

To enter Cold Start Mode:

1. Be sure ignition is off.
2. Press and hold the Valet switch.
3. Continue holding the Valet switch and press Transmitter Button 3 for 5 seconds then release both buttons.
   - *The parking lights will flash 5 times.*
   - *The engine will start and run for 30 seconds then shut down.*
   - *The LED will double flash.*

6. LCD 2-way Transmitter (MS2107)

6.1 Programming LCD 2-way Remote Transmitters

Make sure to have the transmitter ready and follow the steps below.

To program a transmitter:

1. Turn the ignition ON.
2. Press the Valet/Override switch twice and hold for 5 seconds.
   - *The siren will chirp once.*
3. Press and hold the Lock button on the LCD transmitter for 2 seconds.
   - *The siren will chirp once.*
   - *The LCD transmitter will beep.*
4. Turn OFF the ignition when transmitter programming is complete.
   - *The siren will chirp 3 times.*

7. User Selectable Programming Options

The Ungo MS2105/MS2107 features a user selectable programming table allowing simple adjustments to match the user's preferences.

User Programming Options Table

Feature	Button 1 (default)	Button 2	Button 3
1. Arming Mode	Active	Passive	
2. Auto Rearm	On	Off	
3. Arming Chirps	Normal	Silent	
4. Ignition Controlled Door Locking	On	Off	
5. Ignition Controlled Door Unlocking	All Doors	Driver's Door	Off
6. Override Code Programming	Code Set		
7. Remote Start in Valet Mode	Enabled	Disabled	
8. Automatic Starting	Every 2 Hours	Every Hour	
9. Engine Run Time	15 minutes	25 minutes	

7.1 Programmable Options

1. **Arming Mode:** Selects whether or not the system will automatically Arm when ignition is turned off.
2. **Auto Rearming:** Selects whether or not the security system will rearm if no activity is detected after Remote Disarming. (If Passive Door Locking feature was selected during installation, the system will also relock the doors.) Automatic Rearming only takes place if the system was Armed (actively or passively) for at least 10 seconds and then remotely disarmed.
3. **Arming Chirps:** Selects whether or not the security system will chirp when arm and disarmed.
4. **Ignition Controlled Door Locking:** Selects whether or not the doors will lock when the ignition is turned On. Ignition Controlled Door Locks will automatically lock the doors 10 seconds after the ignition is turned On. To prevent the keys from being locked inside the vehicle; the security system will not lock the doors if any of the doors is open when the ignition is turned On.
5. **Ignition Controlled Door Unlocking:** Selects whether or not the security system the doors will unlock when the ignition is turned Off. Ignition Controlled Door Unlocking can be configured to unlock all the doors or driver's door only.
6. **Override Code Programming:** Selects the number of times the Valet button must be depressed to override the system. The Override Code can be any number between 1 and 15. (Default setting is 1)

6. **Remote Start in Valet Mode:** Selects whether or not the remote start can be activated when the security system is in Valet mode.
8. **Automatic Starting:** Selects the timing interval for the automatic remote start function. When the Automatic Starting feature is enabled by the user, the vehicle will start and run every 2 hours or every hour depending on the programming option selected for this step.
9. **Engine Run Time:** Selects the length of time the engine will remain running during remote start operation.

7.2 Entering User Programming

To change any of the user programmable options, follow the steps below:

1. Turn the ignition ON.
2. Within 5 seconds, press the Valet/Override button 2 times and hold for 2 seconds.
   - *The siren will chirp, indicating that User Programming has been entered.*
3. Press the Valet/Override button the number of times equal to the Option to be changed.
   - *The siren will chirp each time the Valet/Override button is pressed.*
4. Within 5 seconds, press the transmitter button corresponding to the desired operating mode for that Option.
   - *The siren will chirp a number of times equal to the transmitter button pressed.*
5. When finished, turn the ignition OFF to save changes.

7.3 Default Reset for User Programming

The user programmable options may be restored to the factory default setting at any time. To restore the factory defaults follow the steps below:

1. Turn the ignition ON.
2. Within 5 seconds, press the Valet/Override button 2 times and hold for 2 seconds.
   - *The siren will chirp, indicating that Programming has been entered.*
3. Press transmitter button 3.
   - *The siren will chirp 6 times indicating the reset signal has been received, and User Options have been reset to factory default.*

8. Reference Charts

8.1 Transmitter Operation

BUTTON	DURATION	FUNCTION
Lock	Short	Arm
Unlock	Short	Disarm
Trunk	Long (3 Seconds)	Auxiliary 1 Output
Lock	Long (3 Seconds)	Panic
Lock then Lock	Short then Short	Remote Sensor Bypass

8.2 Status Indicator (LED) Functions

LED STATUS	FUNCTION
Off	System is disarmed in Active mode
Slow Flash	System is Armed
Rapid Flash	Passive arming indication and auto rearm
Rapid Flash (after disarm)	System was triggered
On Solid	Valet mode
On Solid (after arming)	On for 10 seconds, shock sensor trigger has not yet armed
On Solid (when disarmed and not in Valet mode)	Door or hood/trunk is open

8.3 Siren Chirp Status

CHIRPS	FUNCTION
1 Chirp	System Armed
2 Chirps	System Disarmed
3 Chirps	System Disarmed, but system was triggered while away.
3 Chirps	5 seconds after arming indicates open hood, trunk, or sensor trigger zone.
2 Chirps when the ignition is turned Off.	Door was open when the ignition was turned off.

9. WARRANTY INFORMATION

This Ungo Security System is warranted against defects in material and workmanship. The main unit and remote controls are covered by this limited lifetime warranty. This Limited Lifetime Warranty applies to Ungo Security systems that have been installed by an authorized Ungo Security dealer. This warranty is to the Original Purchaser ("Owner") and to the original vehicle in which it was installed into. This warranty is not transferable to any subsequent owner(s) of the product(s).

Warranty Program:

Main Unit	Limited Lifetime
Remote Controls	Limited Lifetime
LCD Remote Control	Three years from date of purchase
Siren	One year from date of purchase
Shock Sensor	One year from date of purchase
LED	One year from date of purchase
Valet/Override Button	One year from date of purchase

The *Warranty* does not cover batteries or products deemed damage through alterations or installation. It also does not cover products mishandled, misused, neglected, abused, water damaged, or with removed/altered serial numbers.

PROOF OF PURCHASE WILL BE REQUIRED FOR WARRANTY SERVICE OF THIS PRODUCT.

This warranty does not cover the costs incurred for removal or reinstallation of the main unit and/or any damage to the vehicle or the vehicle's electrical system.

The sole responsibility of Clarion Corporation under this Warranty shall be limited to the repair or replacement of the product, at the sole discretion of Clarion Corporation.

If it becomes necessary to send the product or any defective part to Clarion Corporation, the product must be shipped in its original carton or equivalent carton, fully insured, with shipping charges prepaid. Clarion Corporation will not assume any responsibility for any loss or damage incurred in shipping.

ALL IMPLIED WARRANTIES EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW SHALL HAVE NO GREATER DURATION THAN THE WARRANTY PERIOD SET FORTH ABOVE. UNDER NO CIRCUMSTANCES SHALL CLARION CORPORATION BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECT OR CONSEQUENTIAL, ARISING OUT OF THE USE OR INABILITY TO USE OF THE PRODUCT. BECAUSE SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR EXCLUSIONS OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE THE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

Should you have any difficulties with the performance of this product during warranty, please call: 1-800-GO-CLARION or visit your local Ungo dealer. You may also contact the National Service Manager at the following address below for additional service help you may need.

Clarion Corporation of America
Attn: National Service Manager
661 W. Redondo Beach Blvd.
Gardena, Ca 90247

10. INSTALLATION INFORMATION

Date of Installation: _____

Installation Facility: _____

Facility Address: _____

_____

_____

Facility Phone Number: _____

Location of Valet/Override: _____

NOTES

_____

_____

_____

_____

Clarion Corporation of America
661 W. Redondo Beach Blvd.
Gardena, CA 90247
www.clarion.com